

Nalbandyan, A. B.
MECHANISM OF THE PHOTOCHEMICAL OXIDATION
OF METHANE. [K Mekhanizmu Fotokhimicheskogo
Oksleniya Metana]. [1963] [15p] 6refs
Order from OTS, SLA, or ETC \$1.60 TT-63-20807

Trans. of [Zhurnal Fizicheskoi Khimii] (USSR)
1948, v. 22, no. 12, p. 1443-1453.
Other translations are available from SLA as R-02190,
14p; from NRCC as TT-114.

DESCRIPTORS: *Methanes, Oxidation, *Photochemical
reactions, *Reaction kinetics, Heat of activation,
Absorption, Oxygen, Mercury lamps, Hydrocarbons.

(Chemistry--Physical, TT, v. 11, no. 4)

TT-63-20807

I. Nalbandyan, A. B.
II. SLA R-02190
III. NRCC TT-114

Office of Technical Services

Zh Fiz Khim Vol. 21, No 12, pp 1461-9, 1948
52?

Phase changes of the II type and critical phenomena,
V. K. Semenchko

AEC/BNL/Tr 132

New Method for Calculating the Solubilities of
Electrolytes in Multicomponent Systems, by A.
B. Zdanovskiy, 22 pp.

RUSSIAN, *pr*, *Zhur Fiz Khim*, Vol XXII, 1948, pp
1478-1485, 1486-1495.

S/A 59-19094

SLA R-2129

Sci 1478-1485 DSVR Lending Lib Unit M-250

72, 219

Aug 58

On G. M. Panchenkov's Theory of the Viscosity of
Liquids, by A. L. Khein.
RUSSIANG, per, Zh. Fiz. Khim, Vol 22, No 12,
1948, pp 1513-1521.
NLL 5828.4F (11714)

Sci - Chem

~~Aug.~~ 67

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Electron Microscope Studies of the Surface of
Working Contacts, by S. Z. Roginskiy, I. I.
Trem'yakov, A. B. Shekhter, 20 pp.

RUSSIAN, thrice-mo per, ⁴ Zhur Fis Khim, Vol
XXIII, No 1, 1949, pp 50-56.

CIA/FDD/X-1191

Scientific - Chemistry
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Dipole Moments and Vibrational Spectra
of Sulfinic Acids, by E. N. Gur-yanova
and Y. K. Syrkin, 12 pp.

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1949, pp 105-114.

SLA R-2157

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Aug 58

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Vol 23, # 2, pp 115-23 (42)

Theory of the Surface Tension of Metals
A.E. Glaubergerman

HEC 22. 286

13 204

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GLAUBERMAN A. E.

On the theory of the surface energy of heteropolar crystals

Zhur. Fiz. Khim., 23, No. 2, 124-130 (1949)

TT 111 - English

E u r a t o m

AFC/ISNL/TR 118

(NY-4828)

Spatial Distribution of Precipitates on
Crystallization of Mutually Diffusing Substances,
by P. B. Afanas'yev, Ya. B. Zai'dovich, O. K.
Todes, 33 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 2,
1949, pp 156-179.

JPRS 7260

Sci - Phys

136,520

Jan 61

(NY 4828)

Mathematical Formulation of the Theory of
Periodic Precipitation, by Ya. B. Zel'dovich,
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JPRS 7261

Sci - Phys

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Theory of Periodic Homogeneous Chemical
Reactions, II. Thermokinetic Auto-Oscillatory
Model, by I. E. Sal'nikov, 30 pp.

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1949, pp 258-271.

NLL 2828.4 F

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Scientific - Physics
CTS/DEK

9875-

Retardation of Oxidation of Diisopropyl Ether and of
the Ethylene Fraction by Inhibitors, by M. B. Neiman,
V. A. Molodovskiy, G. A. Bogdaria.

RUSSIAN, no ENG. Zhur Fiz Khim, Vol XXIII, No 3,
1949, pp 281-288.

TT 813
ABC Tr 569

DSIT-235

Scientific - Chemistry

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The Electrification of Drops During Atomization
of Liquids as a Result of Fluctuations in the
Ion Distribution, by G. L. Natanson, 18 pp.

RUSSIAN, *zhur Fiz Khim*, No 3, 1949, Vol XXIII,
pp 304-314. 9572601

FTD MOL-1385/1

Sci - Phys

176, 141

18 Dec 61

ZHUR FIZ KHIM

Vol XXIII, No 4, 18 pp, 1949

"Active Ensemble of Platinum in Oxidizing-Reducing and
Hydrogenation Processes"

N.I. Kobozev
N.A. Reshetovskaya

Translated
Wilson Dam #2857

57/49T19

The Intramolecular Hydrogen Bond and the Dipole Moments of Organic Compounds, by A. E. Lutskiy, 13 pp.

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RUSSIAN, thrice-monthly, ~~VOYENNAIA KHIMIYA~~, Vol XXIII, No 4, 1949, pp 361-367.

CIA/FDD/X-1217

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CTS/DEX

9878

Double Refraction of Flow in Polybutadiene and
Polymethyl Methacrylate Solutions, by V. Tsvetkov,
A. Petrova, 23 pp.

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No 4, 1949, pp 368-378.

C IA/FDD/X-1209

Scientific - Chemistry
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Temperature Dependence of the Rate
Constant of the Decomposition of Ammonia
in the Electric Discharge, by N. N.
Zakhavayeva, 5 pp.

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1949, pp 379-382.

Wilson. Nam 2848
SLA R-2221

Sci

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Pressure Effect on the Rate of Reactions in Solutions,
by M. G. Gonikberg, G. S. Povkh, 12 pp.

RUSSIAN, no par, Zhur Fiz Khim, Vol XXIII, No 4,
1949, pp 383-387.

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RF-3921

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Active Ensembles of Platinum in Oxidation -
Reduction and Hydrogenation Processes, by N.
I. Kobozev and N. A. Reshetovskaya, 21 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, 1949,
pp 388-405.

SLA R-223⁴

Sci

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72,185-

Karpachev, S., Rempel', S., and Iordan, E.
INVESTIGATION OF ANODE OVERVOLTAGE IN
FUSED MIXTURES OF CRYOLITE WITH ALUMINA.
[1963] 12p 1ref
Order from OTS or SLA \$1.60

63-18997

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1949,
v. 23 [no. 4] p. 422-427.

DESCRIPTORS: *Aluminum compounds, Oxides,
*Cryolite, Mixtures, *Fused materials, *Electric
potential, Anodes.

The anode overvoltage in fused mixtures of cryolite with
alumina on carbon, graphite, and platinum electrodes
was investigated. It was shown that the anode potential
varies as a function of the current density according
to the equation $E = a + b \lg i$. The numerical values
of the coefficients b were determined for all of the
cases investigated. (Author)
(Chemistry--Physical, TT, v. 10, no. 11)

63-18997

- I. Title: Overvoltage
- I. Karpachev, S.
- II. Rempel', S.
- III. Iordan, E.

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The Anodic Evolution of Oxygen on Nickel in Alkaline Solution, by L. M. Volchkova, A. I. Krasil'shchikov, 8 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 4, 1949, pp 441-444.

SIA 60-14A05

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Basic Structural Types of Adsorbents and Their
Effect on the Adsorption Properties, by A. V.
Kiselev

RUSSIAN, per, Zhur Fis Khim, Vol XXIII, 1949,
pp 452-468.

Nat'l Res Council Canada TT 237

Scientific - Chemistry
Jul CTS/DEX Price 0.25

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ZHUR FIZ KHIM

Vol XXIII, No 5, 12 pp, 1949

"Research on the Process of Viscous Flow in
Polyisobutylene"

V. A. Kargin
T. I. Sogolova

AEC Tr #379
Brookhaven

58/49T32

Zhur' Fiz Khim

Vol 23, #5, pp 505-15 (1949)

Optical Study of Hydrogen Bond of Acetylacetone + its
Derivatives

D. N. Shigorin

Acc Trans. # 316

Frankhausen

Determination of the Molecular Weight of Linear
Polymers by Their Mechanical Properties, by V. A.
Kargin, G. L. Sloninskiy, 14 pp.

RUSSIAN, per. Zhur Fiz Khim, Vol XXIII, No 5, 1949,
pp 563-571.

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Scientific - Chemistry
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Kinetics of the Heterogeneous Reaction of Dry
SO₂ With Dry NO₂ at High Temperatures. IV, by
V. V. Illarionov.

RUSSIAN, per, Zhur Fiz Khim, Vol XXVII, 1949,
pp 572-576.

NLL M. 2585

Sci - Chem

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Adiabatic Calorimeter With Constant Heat ~~Exchanger~~ Exchange for
Measuring the Heats of Adsorption of Gases and Liquids, by
A. V. Kiselev.
RUSSIAN, per, Zhur Fiz k Khim, Vol XXIII, No 5, 1949,
pp 577-594.

CRL/T. 1314

Sci - Chem

Feb 64

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Law of Crystallization of Thin Silver Filaments,
by K. M. Gorbunova, A. I. Zhukova, 27 pp.

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No 5, 1949, pp 605-615.

CIA/FDD/X-1218

Scientific - Chemistry
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The Crystallochemical and Diffusion Mechanism of
Electrocrystallization, by K. M. Gorbunova, P. D.
Dankov, 18 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 5, 1949,
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Calculation of the Simpler Equilibrium of Diagrams of
Binary Alloys, by B. Ya. Pines, 22 pp.

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Scientific - Chemistry

17 December 1952

Zhur Fiz Khim, XXIII, 647-55, (1949)

Dependence of Activity Coefficient on the Dielectric
Constant and the Basicity of the Medium

N. A. Izmailov (Dept of Phys Chem, Gor'kiy State
University, Kharkov)

(Wilson Dam 2860)

SLA R-2225

Photosensitizing the Internal Photoelectric Effect
of Zinc Oxide and Other Semiconductors With
Adsorbed Dyes, by E. K. Putseyko, A. N. Terenin,
25 pp.

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pp 676-688.

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CTS-62-10025(10pp)
676-678, 72R (pp) 9868

Scientific - Physics
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Kinetics of the Conversion of Carbon Monoxide by
Steam, by N. V. Kul'kova, M. I. Temkin, 33 pp.

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1949, pp 695-713.

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Sci Tr Ctr RR-3484

Scientific - Chemistry

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May 56 CRS/dex

Production of Atomic Oxygen in Water Vapor Discharge
and Some of Its Reactions, by L. E. Avramenko.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 7, 1949.

AEC Tr 200

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June 1949

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SHVARTSMAN A. L.

Zhurnal Fiz. Khimii, vol. 23, 1949, pp. 755-760;
5 tables, 1600 words.

Activity of Carbon in Austenite.

Brutcher Trans, Order No. 2373, \$2.80.

Investigation of Cellulose and Its Derivatives by
Infrared Absorption Spectra, by V. N. Nikitin,
18 pp.

RUSSIAN, per, Zhur Fiz. Khim, Vol XXIII, No 7, 1949,
pp 775-785.

NLL 3608.4F

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Infrared Absorption Spectra of Nitrocellulose
Solutions, by V. N. Nikitin, 7 pp.

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The Fundamental Equation of Topochemical
Reactions Which are Not Catalyzed by the
Solid Reaction Product, by M. M. Pavlyuchenko,
6 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, 1949,
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AEC Tr-4123

Sci - Phys, Chem
14 Oct 60

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Reactions Involving Solids in the Absence of
Any Catalytic Action of the Reaction Products,
by M. M. Pavlyuchenko, 14 pp.

RUSSIAN, ~~par~~, Zhur Fiz Khim, Vol XXIII, 1949,
pp 800-808.

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ABC Tr-4122

Sci - Phys, Chem
14 Oct 60

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The Problem of Measuring the Decomposition Voltage of
Molten Electrolytes in the Presence of Glass Diaphragms.,
by N. G. Chovnyk, ~~2~~ pp.

RUSSIAN, PER, Zhur Fiz Khim, Vol XXIII, 1949, pp 839-48.

AEC-tr-1816 (12 pp)
SLA RT-3436 (17 pp)
OTS (3-124911) (21 pp)

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The Nature of Eutectic Alloys, III.
Modification of the Binary Eutectics, by S.
Avakyan and N. Lashko, 6 pp.

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SLA R-2232

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Gonikberg, M. G.
ON LIQUID-GAS PHASE EQUILIBRIA UNDER PRES-
SURE. [1963] 4p. 5 refs.
Order from OTS or SLA \$1.10 63-14847

Trans. of [Zhurnal Fizicheskoi Khimii] (USSR) 1949,
v. 23 [no. 7] p. 861-862.

DESCRIPTORS: *Phase studies, Liquids, Gases, Pres-
sure, *Nitrogen, *Hydrogen, *Benzene, Solubility.

(Chemistry--Physical, TT, v. 10, no. 6)

63-14847

I. Gonikberg, M. G.

Office of Technical Services

Stability of Supersaturated Salt Solutions, by M.
Tovbin, S. Krasnova, 10 pp.

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863-870. IC

SLA R-2845

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The effect of intermolecular interaction on the spectra of the combination of light scattering (Raman spectra)

Zhur. Fiz. Khim., 23, No. 8, 873-884 (1949)

TT 200 - English

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The Kinetics of Desorption of Activated Adsorbed
Hydrogen, by N. P. Keyer, S. Z. Roginskiy

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1949, pp 897-916.

AEC Tr 290

Sci Tr Center T T 124

Scientific - Chemistry

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Some Special Properties of Adsorption Related to
the Heat Disorder of the Surface of a Crystal,
by F. F. Volkenstein, 20 ~~pp~~ pp.

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1949, pp 917-930. D 354904; D 450329.

CIA/FDD X-2207

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(NY-4828)

Interface Surface Tension of Mutually Soluble
Liquids, by Ya. B. Zel'dovich, 8 pp.

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JPRS 7262

Sci - Phys

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Determination of Transport Numbers of Cations and Anions in a Pure Molten Salt, by Karpechev, S., and Sal'gaev, S. 25 pp.

RUSSIAN, per, Zhurnal Fizicheskoi Khimii, 1949, Vol 23, pp 942-952.

Sci ENG Museum Lib No 52/0420

OTS 63-18994

Investigation of Electrocapillary Phenomena in
Tin-Gold and Bismuth-Tellurium Alloys, by S.
~~Stepa~~ Karpachev, E. Rodigina.

RUSSIAN, per, Zhur Phys. Khim. Vol XXIII, No 8,
1949, pp 953-958.

DSIR/31279/CT

Sci - Physics
Feb 58

SLH R-1791
58,839

Effect of the Type of Mixed Solvent Upon Solubility.
Solubility of Dimethyl Glyoxime in Aqueous-Alcoholic
MIXTURES, by A. G. Stromberg, 14 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 8, 1949,
pp 962-968.

ALL 5684.4F

CIA/FDD/X-1316

Scientific - Chemistry
CTS/DEX

11,967

Crystallochemical Mechanism of the Formation and
Development of the Latent Photographic Image,
by P. D. Dankov, 13 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 9,
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CIA/FDD/X-1265

Scientific - Physics
CTS/DEX

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On the Crystallochemical Mechanism of the Formation
of the Oxide Film on Iron at Room Temperature, by
P. D. Dankov and N. A. Shyshakov.

RUSSIAN, Zhur Fiz Khim, Vol 23, No 9, 1949, pp 1031-
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Dankov, P. D. and Shishakov, N. A.
SUR LE MÉCANISME CRISTALLOCHIMIQUE DE
FORMATION DE LA PELLICULE OXYDÉE DU FER
À LA TEMPÉRATURE AMBIANTE [O Kristallokhimi
cheskom Mekhanizme Obrazovaniya Oksidnoy Plenki na
Zheleze pri Komnatnoy Temperature] [On Crystallo-
chemical Mechanism of Formation of Oxide Film on Iron
at Room Temperature] tr. by M. Szysman. 13 Dec 60
[16]p. 7 refs. CEA Trans. no. R 1126. 61-19589
Order from OTS or SLA \$1.60

Trans. in French of Zhurnal Fizicheskoy Khimii
(USSR) 1949, v. 23, no. 9, p. 1031-1035.
A translation available in English from SLA as RT-1914.

- I. Dankov, P. D.
- II. Shishakov, N. A.
- III. CEA-tr-R1126
- IV. Commissariat à l'Énergie
Atomique (France)

175281

Thermal Expansion Near the Melting Point, by G. M.
Bartenev, 19 pp.

RUSSIAN, Zhur Fiz Khim, Vol 23, 1949, pp 1075-1082.

Sci Museum No 51/2734

Scientific - Physics

Veselovskii, V. I.
PHOTOELECTROCHEMICAL PROCESSES ON IRON
IN THE PRESENCE OF HYDROGEN PEROXIDE
(Fotoelektrokhimicheskie Protsessy na Zheleze v
Prisutsvii Perekisi Vodoroda). [1962] [21]p. (foreign
text included) 7 refs.

Order from OTS or SLA \$2.60

62-16087

Partial trans. (excerpts) of Zhurnal Fizicheskoi
Khimii (USSR) 1949, v. 23, no. 9, p. 1095-1105.

DESCRIPTORS: *Iron, *Hydrogen compounds, *Per-
oxides, Radiation effects, Electrochemistry, Photo-
chemistry.

For abstract of original article see Chem. Abstracts
44: 929b, 1950.

(Chemistry--Physical, TT, v. 8, no. 4)

62-16087

I. Veselovskii, V. I.

Office of Technical Services

Photolysis of Silver Erythrosinate and the Mechanism
of the Sensitized Photochemical Decomposition of
Silver Halide, EXR by S. V. Natanson, G. L.
Natanson, 22 pp.

RUSSIAN, per, Zhur Fiz Khim, EX Vol XXIII, No 9,
1949, pp 1106-1115.

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Scientific - Chemistry
ECTS/DEX

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The Sorption and Structure of Active Charcoals.
VI. Structural Types of Active Charcoals, by M. M.
Dubinin and E. D. Zaverina, UNCLASSIFIED

RUSSIAN, per, Zhur Fiz Khim, 1949, Vol 23, No 10,
pp 1129-1140.

Sci Mus Lib No 52/2936

Scientific

100 AEC T 564

25 October 1952

Grdenich, D. R. and Kitafgorodskii, A. I.
THE CRYSTAL STRUCTURE OF MERCURY ALKYL
HALIDES. 18p. 15 refs. MTWL: 751.
Order from OTS or ETC \$1.85

61-17260

Trans. of Zhurnal Fizicheskoi Khimii (USSR) 1949,
v. 23, no. 10, p. 1161-1171.

DESCRIPTORS: *Mercury compounds, Halides,
Alkyl radicals, *Crystal structure.

61-17260

- I. Grdenich, D. R.
- II. Kitafgorodskii, A. I.
- III. MTWL-751
- IV. Stichting Moeilijk
Toegankelijke Wetenschap-
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ZFK, XXIII, No. 10, 1949

pp. 1187-96

THE EFFECT OF DIETHYL PEROXIDE ON THE DECOMPOSITION OF
NORMAL BUTANE

MAYZUS, Z. K., et. al.

Proj. 4366
(part of)

CD ST-24

*HEC 2v. 301
75/10/1949*

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Crystallization of Calcium Arsenates, by A. P.
Belopol'skiy, S. M. Shogam, 11 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, 1949,
pp 1266-1274.

SLA 60-17709

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OTS, Vol IV, No 3
Oct 60

129, 444

Electronmicrographic Study of Films of Polyvinyl
Alcohol, Part I, by G. I. Distler, Z. G. Pinsker,
19 pp.

RUSSIAN, per, Zhur Fiz. Khim, Vol XXIII, No 11, 1949,
pp 1281-1291.

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Scientific - Chemistry
SIS/DEX

11,973

Oxygen Quenching of the Fluorescence of Anthraquinone
Derivatives in Vaporous State, by ~~EX~~ A. V. Karyakin,
21 pp. UNCLASSIFIED

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RUSSIAN, no per, Zhur Fiz Khim, Vol ~~XXXII~~, No 11,
Nov 1949, pp 1332-1344.

ATIC F-TS-8163-A

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Scientific - Chemistry
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ATIC 133837

Feb 54 CTS

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Oxygen Quenching of the Fluorescence of Anthraquinone
Derivatives in Adsorbed State, by A. V. Karyakin,
21 pp, UNCLASSIFIED

RUSSIAN, no per, Zhur Fiz Khim, Vol XXIII, No 11,
Nov 1949, pp 1345-1356.

ATIC F-TS-8163-B

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ATIC 133837

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ZFK, XXIII, No. 11, 1949

pp. 1361-74

THEORY OF SPARK IGNITION OF EXPLOSIVE GAS MIXTURES

ZEL'DOVICH, Ya. B., et. al.

Proj. 4366

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*REL. Cont. 357
B...*

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Relationship Between the Structure of Vinyl Com-
pounds and their Ability to Polymerize, by Kh. S.
Bagdasar'yan, 21 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 11, 1949,
pp 1375-1384

NLL 5828.4P

CIA/FDD/ X-1132

Scientific - Chemistry

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Investigation on Finishing Photographic Emulsions, I.
Finishing Importance of Gelatin; Effect of Temperature
and the Concentration of Bromide Ions, by K. V.
Chibisov, A. A. Titov, A. A. Mikhaylova, 24 pp.

RUSSIAN, per, Zhur Fiz Khim, Vol XXIII, No 12, 1949,
pp 1387-1398.

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Scientific - Physics
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New Methods for the Measurement of the Specific Surface
(in cm^2/g) and of the Specific Adsorption (in g/cm^2).
Part I, by B. V. Derjagin, V. I. Krylova, R. M. Fridlyand

RUSSIAN, no per, Zhur Fiz Khimii, Vol XXIV, No 11,
1950, pp 1371-1382.

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Scientific - Chemistry

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The Dependence of Chemical Reaction Rates, on
Pressure, by M. G. Gonikberg, L.F. Vereshagin.
RUSSIAN, per, Zhurnal Fizicheskoi Khimii,
Vol 23, No 12, 1949. P911143666
AEC BNI-tr-95

Sci/Physics
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A New Effect in the Temperature Dependence of Surface
Tension, by S. G. Urzovskiy, D. M. Chetayev, 17 p.

RUSSIAN, par, Zhur 218 Kmit, 1949, Vol XVIII, No 12,
pp 1421-1425.

CIA: 59-20725

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Vol 3, No 1.

110, 388

Effect of Organic Additions Upon Over-Voltage
During Separation of Hydrogen and Chromium and
The Overcharging of Titanium and Vanadium Ions,
by M. A. Loshkarev, A. A. Kryukova.
RUSSIAN, per, Zh. Fiz. Khim, Vol 23, No 12,
1949, pp 1457-1463.
NLL 5828.4F (11717)

Sci - Phys

Aug 67

Sept.

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